

Air conditioning for all? Hotter world facing 'cooling poverty'

OXFORD: As climate change brings more frequent and extreme heatwaves around the world, demand for air conditioners is soaring, with 10 new units sold every second on average - but the poor may be left to swelter, said a University of Oxford researcher. By 2050, energy use for cooling is projected to triple, while in hot countries like India, China, Brazil and Indonesia, it is expected to grow five-fold, the World Bank has said. "By the end of the century, global energy demand for cooling will be more than it is for heating," said Radhika Khosla, who leads an Oxford Martin School programme on future cooling.

But not everyone will be able to afford to beat the heat. "Traditionally, energy poverty has been defined as people not having heating. Now that is potentially going to shift, and we could have cooling poverty," Khosla warned on the sidelines of a conference on efforts to slash planet-warming emissions. Rising heat is having a huge impact on health - deaths and hospital admissions jump in heatwaves - but also on productivity as workers struggle to cope, climate scientists say.

A 2018 report from Sustainable Energy for All, a UN-backed organization, said more than 1.1 billion people globally faced immediate risks from lack of access to cooling. On a warming planet, cooling is not a luxury but "essential for everyday life", said the organization's CEO Rachel Kyte. But because air conditioners use 20 times as much power as running a fan, their growing popularity could fuel demand for fossil fuel-based electricity that exacerbates climate change.

Rather than relying entirely on air conditioning, buildings should be designed so they are easier to keep cool, which is still rare, said Khosla, who also directs research at the Oxford India Centre for Sustainable Development. Her modern apartment has windows that open just a few inches, making it hard to keep cool on hot days, she said. "Net zero" buildings - designed partly to stay cool without heavy use of air conditioning - are popping up around the world, from Southeast Asia to the United States and Europe, but

remain the exception, she told the Thomson Reuters Foundation.

Khosla, who has herself lived in a range of hot cities from New Delhi to Chicago, predicted that in the future, housing that cannot be kept cool or have air conditioning installed could see a drop in value, even in relatively cool places such as Britain.

New technology

In some developing nations with rising incomes, buying an air conditioner is also a status symbol, which could make any push for lower-energy alternatives challenging, she said. Making less power-hungry, affordable air conditioners will be crucial, Khosla believes. Most machines for sale now - the majority built in China - are half as energy-efficient as they could be, she said. But researchers are working on more efficient cooling technologies that could hit the market in as little as two years, Khosla said.

Judges are now looking at entries for a \$3-million global cooling prize, launched by the Colorado-based Rocky Mountain Institute, aimed at developing an affordable window air conditioning unit that is at least five times more efficient than current models. Amory Lovins, co-founder of the institute, said designing cheaper, greener air conditioning was "extremely important". Getting manufacturers to ramp up production fast - partly by putting in place policies that require greater energy efficiency - will also be key, Khosla said.

Greener cooling is "one of the levers we have left" to hold the line on climate change, and using less energy for cooling would help avert power blackouts in cities on sizzling days, she said. Cities face an "awful feedback loop" as air conditioners churn out hot exhaust, boosting temperatures further, she said. All these risks mean smarter cooling must be figured out quickly, before the world gets even hotter and more families rush to appliance shops, she said. "It's a future we can't afford to get wrong," she warned. —Reuters

Energy 'transition' touted, but fossil...

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"All energy transitions - including this one - take decades, with many challenges along the road," the CEO of Saudi energy giant Aramco, Amin Nasser, said at the conference. Nasser said his country supports the growing contribution of alternatives, but criticized policies adopted by many governments that do not consider "the long-term nature of our business and the need for orderly transition".

Oil is still the lifeline for the Gulf states, contributing at least 70 percent of national revenues across the region which has been cushioned by decades of immense profits from the flow of "black gold". Gulf nations have invested tens of billions of dollars in clean energy projects, mainly in solar and nuclear. Dubai has launched the world's largest solar energy project, with a price tag of \$13.6 billion and the capacity to satisfy a quarter of the energy-hungry emirate's current needs when it comes on line in 2030.

But critics say the addiction to oil is a tough one to kick, particularly when supplies remain abundant and the massive investment in infrastructure necessary to switch to renewables is daunting. "A global shift from dirty fossil fuel to renewable energy is economically, technically and technologically feasible... All that is

missing is political will!" said Julien Jreissati from Greenpeace in the Middle East.

He said while the United Arab Emirates has put plans into action, "Saudi Arabia which has always made big announcements regarding their renewable energy ambitions is lagging behind as their projects and targets remain ink on paper. "There is no doubt that the world will leave oil behind. The only question remaining is when will this happen?"

Despite important technological advances made in the past decade, renewable energy sources still make up just around 18 percent and nuclear adds another six percent of the world's energy mix. The Abu Dhabi conference saw calls for accelerated innovation and "disruptive" technology to speed the transition as the world prepares for global energy demand to peak between 2020 and 2025, according to the World Energy Council. In a new report yesterday, the council said that avoiding a climate crisis is highly challenging and requires "a mix of all technologies and broader innovation" in tandem with an international dialogue on energy transition.

Estonian President Kersti Kaljulaid also argued that sustainable and environmentally friendly energy practices must be aligned with national and global economic policies in order to have the required impact. "It makes more economic sense to apply all green technologies globally, and if this happens we might go to being CO2-free energy users 5 or 10 or 20 years quicker," she told the conference. "I prefer that market forces, pushed by smart policymaking and legal space-setting, act quickly and save us all from the alternative." —AFP

Ground Zero where hijacked Al-Qaeda planes brought down the Twin Towers. They held poignant moments of silence at 8:46 am (1246 GMT) and 9:03 am, the precise times that the passenger jets struck the North and South Towers. In what has become an annual tradition, relatives began reading out the long list of those who were killed, saying a few words about each victim, in a ceremony that took almost four hours.

"We love you, we miss you and you will always be America's heroes," said one woman after reading out the names of her brother and cousin. Relatives hugged and consoled each other and left roses at the memorial. Some held up placards with images of their loved ones who were killed. Bagpipes played as police officers walked into the ceremony carrying the US flag before the US national anthem was played. New York Governor Andrew Cuomo, Mayor Bill de Blasio, and his predecessors Michael Bloomberg and Rudy Giuliani were among those who attended.

Trump and First Lady Melania Trump welcomed victims' families and survivors to the White House where they marked the anniversary with a moment of silence before the president headed to the Pentagon for his speech. Al-Qaeda hijacked four planes. The third hit the Pentagon and the fourth, Flight 93, crashed in a field in Shanksville, Pennsylvania. In addition to those killed on Sept 11, thousands of first responders, construction workers and residents have since developed illness, many of them terminal, as a result of inhaling the toxic fumes. — AFP

drawing on walls in public places a prior approval of authorities or using children and women in activities that pose a danger to them or scare them. The bill also bans taking pictures of others without their consent in order to make fun of them, besides not respecting queues in public places or for obtaining services.

It bans spitting in public places, throwing trash or cigarettes from cars and placing advertisement posters on walls of private homes without seeking prior permission. The bill proposes a fine of between KD 500 and KD 1,000 for violators. The lawmaker said he submitted the draft law seeking to protect Kuwaiti values, morals and traditions and also safeguard public order after he noticed that strange behaviors and practices have been on the rise.

Trump vows to hit Taliban as...

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He also warned militants against ever carrying out an attack in the US again. "If for any reason, they come back to our country, we will go wherever they are, and use power, the likes of which the United States has never used before," Trump said. "I'm not even talking about nuclear power. They will never have seen anything like what will happen to them," he added.

The warlike comments came as Al-Qaeda, which carried out the attacks, released a video calling for assaults on American, European, Israeli and Russian interests. The militant group's leader Ayman Al-Zawahiri criticized "backtrackers" from jihad in the 33-minute video, according to Site Intelligence Group. Trump announced on Twitter Saturday that he'd been about to meet leaders of the Taliban - who harbored Al-Qaeda in Afghanistan - on Sunday at his Camp David presidential retreat. The announcement angered some, coming so close to the Sept 11, 2001 anniversary.

Relatives of victims, survivors, police officers, firefighters and city leaders held a ceremony yesterday at

MP proposes stiff fines for wearing...

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The bill cannot be debated in the Assembly unless the legal and legislative committee says it is in line with the constitution, a difficult proposition since personal freedom is protected by the Kuwaiti constitution.

The bill also bans people from appearing in public in underwear or sleeping pajamas, or playing loud music that could disturb the public. It prohibits writing or

Sadr joins Iran supreme leader at ceremony

TEHRAN: Powerful Iraqi cleric Moqtada Sadr joined Iran's supreme leader during a rare visit to Tehran to mark the Shiite holy day of Ashura, state media reported yesterday. The office of supreme leader Ayatollah Ali Khamenei issued pictures of Sadr flanked by Khamenei on one side, and the commander of the elite Quds Force of Iran's Islamic Revolutionary Guard Corps, Major General Qasem Soleimani, on the other. Iran's judiciary chief Ebrahim Raisi also attended the ceremony, which commemorates the death of Prophet Muhammad's (PBUH) grandson Hussein at the Battle of Karbala, in modern-day Iraq.

Sadr's surprise visit comes at a time of deep political divisions among Iraq's Shiite factions, and as Baghdad tries to walk a tightrope between its two main allies, Tehran and Washington. Tehran has close but complicated ties with Baghdad, with significant influence among its Shiite political groups. The two countries fought a bloody war from 1980 to 1988 and Iran's influence in Iraq grew after the US-led invasion of Iraq toppled veteran dictator Saddam Hussein in 2003.

In 2014, Iran sent Soleimani and "military advisers" to Iraq to help it in the fight against the Islamic State group, and Soleimani continues to play a key role as a powerbroker in Iraq during times of turbulence. Sadr himself is a populist cleric, political figure and former militia leader whose bloc emerged as the biggest in the Iraqi parliament after May 2018 elections.

But he refused to align with the pro-Iran camp to form



TEHRAN: (From left) Iran's Supreme Leader Ayatollah Ali Khamenei, Iraqi Shiite cleric Moqtada Al-Sadr and Qasem Soleimani, Iranian Revolutionary Guards Corps lieutenant general sit during a ceremony commemorating Ashoura on Tuesday. — AFP

a government, visited Tehran's regional rival Saudi Arabia and has criticized pro-Iran paramilitary groups in Iraq - sparking contradictory analysis of the current visit. Some observers suspected Sadr had been "summoned" to Tehran after statements challenging Iran and its Iraqi allies in the Hashed Al-Shaabi paramilitary force.

The Iraqi cleric recently launched a Twitter campaign against the more hardline elements of the Hashed and even took aim at the Iraqi government, saying Iraq was becoming a "rogue" state. Others said it might indicate a vote of confidence in him by Iran's top leadership over the Hashed's political arm, the Fatah alliance. Many noted it was strange to see Sadr outside Iraq on Ashoura, a holy day during which millions of pilgrims travel to Karbala. On Tuesday, a stampede broke out among pilgrims visiting the Imam Hussein shrine in Karbala that left 31 people dead and more than 100 wounded. —AFP

Water discovered in atmosphere...

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Future space missions are expected to detect hundreds more in the coming decades.

"Finding water in a potentially habitable world other than Earth is incredibly exciting," said lead-author Angelos Tsirias, also from UCL. "K2-18b is not 'Earth 2.0'," he said. "However, it brings us closer to answering the fundamental question: Is the Earth unique?"

Working with spectroscopic data captured in 2016 and 2017 by the Hubble Space Telescope, Tsirias and his team used open-source algorithms to analyze the starlight filtered through K2-18b's atmosphere. They found the unmistakable signature of water vapour. Exactly how much remains uncertain, but computer modelling suggested concentrations between 0.1 and 50 percent.

By comparison, the percentage of water vapor in Earth's atmosphere varies between 0.2 percent above the poles, and up to four percent in the tropics. There was also evidence of hydrogen and helium as well. Nitrogen and

methane may also be present but with current technology remain undetectable, the study said. Further research will be able to determine the extent of cloud coverage and the percentage of water in the atmosphere.

Water is crucial in the search for life, in part because it carries oxygen. "Life as we know it is based on water," said Tinetti. K2-18b orbits a red dwarf star about 110 light years distant - a million billion kilometres - in the Leo constellation of the Milky Way, and is probably bombarded by more destructive radiation than Earth.

"It is likely that this is the first of many discoveries of potentially habitable planets," said UCL astronomer Ingo Waldmann, also a co-author. "This is not only because super-Earths like K2-18b are the most common planets in our galaxy, but also because red dwarfs - stars smaller than our Sun - are the most common stars."

The new generation of space-based star gazing instruments led by the James Webb Space Telescope and the European Space Agency's ARIEL mission will be able to describe exoplanet atmospheres in far greater detail. ARIEL, slated for a 2028 launch, will canvas some 1,000 planets, a large enough sampling to look for patterns and identify outliers. "Over 4,000 exoplanets have been detected but we don't know much about their composition and nature," said Tinetti. "By observing a large sample of planets, we hope to reveal secrets about their chemistry, formation and evolution." — AFP

UK to let foreign students stay...

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Business Secretary Andrea Leadsom said the change was aimed at attracting the "brightest and the best from around the world" and a sign of "the UK's ambition once we have left the European Union". "Instead of being open to free movement from just the (EU), the United Kingdom will be able to take advantage of a global talent pool... and that's something that's a great advantage for us," she told BBC radio.

Leadsom said the government wanted to increase the number of international students in Britain 30 percent to 600,000 by 2030, with an emphasis on science, technology, engineering and maths, collectively

known as STEM subjects. International students currently make up half of all full-time post-graduate STEM students in the country. "Giving them that two-year period will enable them to find a job that befits their degree," Leadsom added. "There are so many new skills and new industries that are just now emerging, and we do want to be able to attract a global talent pool of people."

But with concerns over levels of immigration a key driver behind Britain's 2016 vote to leave the European Union, the move was not universally welcomed. Alp Mehmet, chairman of Migration Watch UK, which campaigns to reduce immigration levels, said it was an "unwise" and "retrograde" step which would "likely lead to foreign graduates staying on to stack shelves, as happened before". "Our universities are attracting a record number of overseas students so there is no need to devalue a study visa by turning it into a backdoor route for working here," he added. — Agencies

Kuwait condemns Netanyahu's...

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Damascus "strongly condemned" Netanyahu's vow, with a Syrian foreign ministry source telling the state news agency SANA that it was an "expansionist" plan in "flagrant violation" of international treaties.

Israel occupied the West Bank in the 1967 Six-Day War in a move never recognized by the international community. It also seized - and later annexed - part of the Golan Heights from Syria, and the two countries remain technically at war. Saudi Arabia flagged the announcement as a "dangerous escalation", and convened an "emergency meeting" of the foreign ministers of the 57 member states of the Organization of Islamic Cooperation (OIC) in Jeddah on Sunday to discuss the issue.

United Arab Emirates' foreign minister Abdullah bin Zayed Al-Nahyan denounced Netanyahu's proposal as "electoral exploitation in the most heinous form". While the Gulf Cooperation Council's chief Abdellatif Al-Zayani, characterized the Israeli prime minister's rhetoric as a "dangerous and aggressive provocation".

Beyond the Arab world, Turkey slammed Netanyahu's pledge as "racist". Ankara would "defend (the) rights and interests of our Palestinian brothers and sisters till the end," said Turkish Foreign Minister Mevlut Cavusoglu. The United Nations condemned that Netanyahu's plan would have no "international legal effect". Meanwhile, the

European Union said the pledge undermines any prospects for peace. "The policy of settlement construction and expansion... is illegal under international law and its continuation, and actions taken in this context, undermine the viability of the two-state solution and the prospects for a lasting peace," an EU spokesperson said in a statement.

Netanyahu's main opponents in the election, the centrist Blue and White alliance, along with others called the announcement an obvious attempt to win rightwing nationalist votes, which will be key for the premier's Likud party.

Netanyahu's announcement was only the start of a tense evening. Later Tuesday night, Netanyahu was hustled off stage at a campaign rally when sirens warning of incoming rockets blared in the southern city of Ashdod. Both rockets fired from Gaza were shot down by Israel's Iron Dome air defense system, and Netanyahu later returned to the stage after the all-clear, saying Hamas was scared of him winning the election. Israel later bombed Hamas positions in Gaza in response, causing no casualties. Yesterday, three more rockets were fired toward Israel from Gaza, the army said, and an Israeli tank retaliated by striking two Hamas posts. There were no reports of casualties.

Recent days have also seen a controversial push by Netanyahu to pass legislation that would allow party officials to bring cameras into polling places during the election. The legislation drew outrage from opposition parties, and critics labeled a clear attempt to depress turnout among the Arab population as it could intimidate many into staying away. A vote on the bill failed in parliament yesterday, but before that the head of the mainly Arab Joint List alliance, Ayman Odeh, approached Netanyahu and stuck his phone in front his face to film him. Odeh was removed from the chamber. — Agencies